

**Success Stories** 

# Software architecture project based on separation of duties for Access

#### About Access

Access is recognized as one of the fastest growing and most dynamic companies in the records and information management (RIM) industry. They are based in the United States, Panama, Costa Rica, Trinidad and Tobago, and Brazil. It is a single source company that takes care of all your records storage, data protection and digital information management needs. Founded by Dennis Barnedt and a team of experienced industry leaders with a vision to transform and elevate the industry, it offers a full suite of services that enable clients to harness the power of information.



## Challenge

Access has a document digitization center available to its customers. These documents are signed with a "signature" card that the Government delivers. A number of PDF documents are uploaded and the application starts processing the documents and signing them. Access approached Rootstack looking for a solution to separate this device where the signature is recorded to have more storage capacity.

## Our solution

The Rootstack team got down to business. First, they separated the servers: the backend from the "signing" servers, and connections were made via web services so that





the backend would send the signers a number of documents to sign.

There are two physical computers that are signing the documents, unlike previous months when the backend and the signer were on the same machine and this considerably reduced the capacity of the application to sign and process the documents.

A different architecture was proposed where the signing process was separated from the backend itself. Additionally, the application was coupled to achieve this process. It is a project of type Project-Based Model.

In the backend there is an orchestrator that sends to the different signing servers. In Access at the moment they have two signing servers and a backend server available, allowing them to increase their servers while they increase capacity.



The entire backend that Rootstack created was made using .NET.

In summary, the project was about a separation of the backend and the creation of a signature queue process due to the size of the files so that the servers do not collapse. In addition to this, the sending process was modified: web services had to be developed to send and receive the files.

#### Technology

To work on the backend and the separation of functions, .Net was used.

.NET is a Microsoft framework that allows you to create web applications and services for Windows, Linux, macOS, and Docker. All .NET applications can be written in C#, F#, or Visual Basic. Learn more about this technology here.

Development with .NET is agile and fast. Build apps with an amazing user experience while working with languages like C# and Visual Basic. You can develop 2D and 3D games for most consoles and electronic devices.

